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**SAFE-T CUP LID**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

This Application is in accordance with a Provisional Patent Application filed November 17, 2003, as Serial No. 60/520,568.

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**STATEMENT REGARDING FEDERALLY  
SPONSORED RESEARCH OR DEVELOPMENT**

Research and development of this invention and Application have not been federally sponsored, and no rights are given under any Federal program.

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**REFERENCE TO A MICROFICHE APPENDIX**

NOT APPLICABLE

**BACKGROUND OF THE INVENTION**

**FIELD OF THE INVENTION**

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This invention relates to take-out beverage drink containers, in general, and to the purchase of containers of hot coffee or tea "to-go", in particular.

**DESCRIPTION OF THE RELATED ART**

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As is well known and understood, when purchasing a hot beverage, one is provided with a cup which holds its contents, and with a plastic lid to cover the opening of the cup. Although some lids prevent access to the hot beverage within unless the lid is first removed from the cup, most of the lids used today allow the sipping or drinking of the beverage through a slotted opening in the cover while still on the cup. While different

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constructions are available, for the most part all of them utilize lids with cut-outs intended for the user to break a tab on the lid, and to then fold it back in allowing the beverage to be consumed.

5           As will be readily appreciated, however, sipping or drinking from the cup is very difficult to do while walking; also, while driving, as the vehicle bumps along the road surface, or traverses hills or valleys. Where the coffee or tea is still very hot, the spillage which results is well able to  
10       cause burns on one's body, along with the associated pain involved. Whether the beverage is hot or cold, furthermore, the spillage soils the clothing, or the interior of the vehicle where the drinking is being done. But, even if the drinker is being exceedingly careful so as not to spill the contents on  
15       his/her body or on the interior of a vehicle, such folding back of the tab allows its contents to cool over time. Although some lids are constructed to have a mechanism which allows the tab to be bent back and locked into a space provided on the top of the cup lid, experience has shown that to be a cumbersome and  
20       complicated task for having to repeatedly bend back the tab to take a sip, and then return it to position to be locked on the cup lid.

          As will be become clear from the following description, the Safe-t cup lid of this invention both allows the drinker to  
25       avoid spilling the contents while walking or driving, while keeping the coffee or tea hotter for a longer period of time.

### SUMMARY OF THE INVENTION

As will become clear from the description below, a slotted window is cut into the cup lid, and a panel door is provided to slide the window opened or closed under finger actuation. In particular, when a sip is to be taken, the finger slides the door open, and when the sip is finished, the finger simply slides the door to close the window.

Thus, a closure lid for a beverage drink container embodying the invention includes a top side, an underside, a slotted window cut through the top and underside inwardly from an edge surface of the lid, a first pair of grooved tracks raised from the underside and spanning opposing sides of the window, a panel door at the underside fitted to slide within the grooved tracks for selectively opening and closing the window as desired, and a boss or button on the door protruding through the window for finger actuation in operatively sliding the door forward and back in allowing dispensing of the beverage drink through the slotted window upon tilting the beverage drink container at an angle. In such preferred embodiment, the closure lid is selected of a different material composition than the beverage drink container, and of a dimension to snugly fit over the beverage drink container lip. Preferably, the panel door and boss are of a 1-piece molded plastic composition, as is the first pair of grooved tracks in which the door is captured and along which it slides. The closure lid, in this respect, may be constituted of plastic.

While the closure lid of the invention is suitable for use with both hot and cold beverage drink containers, it will be appreciated to be especially useful in consuming hot coffee or tea. To ensure optimum operation and minimize even further any possibility of spillage, a second pair of grooved tracks are provided, co-linear with the first pair of grooved tracks and situated inwardly of them along the underside of the closure lid, with similar grooves to allow the panel door to be slid forward and back by finger pressure. Also constructed of a 1-piece molded plastic composition, this second pair of grooved tracks is supplemented, further, by an additional track raised inwardly of this second pair, at an angle with respect to it so as to limit the extent of forward movement of the door. The "stop" thereby provided limits the maximum amount of beverage which can be dispensed at any one angle of container tilt. As with the other component parts of the closure lid, the raised track may also be constructed of a molded plastic composition.

In use, then, the finger slides the panel door to open the slotted window that desired amount to allow the hot coffee or tea beverage to be sipped or drunk. The finger then slides the panel door to close the window, to prevent possible accidental spillage, while serving to close-off the container from the elements; this retains the warmth of the beverage for an increased time than characterizes the prior art constructions available today.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

These and other features of the present invention will be more clearly understood from a consideration of the following description, taken in connection with the accompanying drawings, in which:

FIGURES 1-5 are helpful in an understanding of the construction of the closure lid of the invention and the advantages it affords.

### **DETAILED DESCRIPTION OF THE INVENTION**

FIGURE 1 shows a top view of the closure lid of the invention as having a top surface 12, a slotted window 14 and a boss 16 atop a panel door 18 in position where the slotted window 14 is closed by the door. FIGURE 2 shows the same view of the closure lid where the boss 16 moves the panel door 18 forwardly in the direction of the arrow A to slightly open the slotted window 14 as at 20, where a tilting at an angle of a beverage container allows a dispensing of its contents through the opening 20. FIGURE 3 shows the closure lid with the boss 16 moving the door 18 still further forward, in providing a larger opening 22 to allow a greater amount of liquid beverage to be dispensed upon tilting the container. Reference numeral 24, in this respect, represents an edge surface at the underside 26 of the closure lid (FIGURE 4) in snugly fitting onto the lip at the top of the container (not shown). In a preferred embodiment, the boss 16 and the panel door 18 are fabricated of a 1-piece molded plastic composition. The top and underside surfaces of the

closure lid may be fabricated of plastic, as a different material composition than the beverage drink container.

FIGURE 4 also illustrates first and second pairs of grooved tracks raised from the underside 26 of the closure lid, downwardly in the direction internal of the beverage drink container once placed into position. Such pairs of grooved tracks 28L, 28R and 30L, 30R span opposite sides of the slotted window 14, with the grooves being spaced as in FIGURE 5 to receive the panel door 18 and to allow it to slide within the grooves in the direction of the arrows A and B, forwardly and back thereby opening and closing off the slotted window 14. Although one pair of grooved tracks 28L, 28R may be sufficient where a "cold" beverage fills the drink container, a second pair of grooved tracks 30L, 30R inwardly thereof is preferable for a "hot" beverage in further capturing the panel door 18 as finger actuation opens and closes the slotted window 14 in controlling the amount of beverage to be dispensed. To further limit the amount of liquid content that can be dispensed, an additional raised track 32 extends inwardly from the underside 26 at an angle with respect to the grooved tracks to limit how far forwardly in the direction of the arrow A the panel door 18 can be slid. (Such raised track 32 is shown at a 90° angle to act as a "stop" if trying to open the panel door 18 too far.) In this embodiment, the raised track 32 -- as well as the first and second pairs of grooved tracks 28L, 28R and 30L, 30R -- may be constructed of a molded plastic composition.

Because the panel door 18 and its boss 16 are of a 1-piece molded plastic unit, the boss 16 will be seen as to not break away or become loose from the panel door 18 in usage; this allows for repetitive sliding movement of the door 18 forward and back until the drink beverage in the container is consumed.

As thus described, the closure lid will be seen to be round and conforming to the beverage cup design. The closure lid's window cut-out allows for the consumption of the beverage within, whether "hot" or "cold". The opening in the closure lid represented by the slotted window 14 is selected sufficiently long to permit the free and unimpeded motion of the finger panel door 18 to open and close. And, the slotted window 14 extends from a fixed point near the center of the lid to the edge of the lid, thus allowing for one's lips to be placed at the edge of the closure lid in slowly sipping the beverage.

The underside 26 of the closure lid incorporates the molded and raised grooved tracks to secure the panel door 18, with the grooves 40, 42 being spaced sufficiently to ensure that the panel door 18 freely slides when finger actuated opened or closed (FIGURE 5). Only a small degree of finger pressure is thus required, with the panel door 18 being selected thin enough to both allow its snug fit within the grooves of the tracks and to allow a free gliding through in permitting an easy dispensing of the beverage once the container is tilted at an angle for sipping or drinking its contents.

While there have been described what are considered to be

preferred embodiments of the present invention, it will be readily appreciated by those skilled in the art that modifications can be made without departing from the scope of the teachings herein. For example, although a preferred construction of the invention is one where the closure lid is of dissimilar material composition than its beverage container to which it snugly fits, it will be understood that the two could be fabricated of the same plastic material to have a more permanent take-out beverage container combination, as compared to one which could be disposed of after single use. For at least such reason, therefore, resort should be had to the claims appended hereto for a true understanding of the invention.